

DANIELLE PERRY

Churchill, Fulbright, and NIH-Cambridge Scholar 2004

Degree:

Pennsylvania State University: B.S., Physics, 2004, Minor in Mathematics, 2004

Research Interests: Neurophysics



Home-schooled until the age of 17, Danielle yearned for more than she could find in her home library. Desiring to further her education, she enrolled at Pennsylvania State University and quickly distinguished herself as a stellar student, earning a bachelor's degree in physics and minor in mathematics from the Schreyer Honors College. Danielle has been elected to Phi Beta Kappa, Sigma Pi Sigma, Phi Kappa Phi, and Golden Key honors societies, and named the "most achieving undergraduate woman" from Penn State's Commission for Women. She served as an officer in the Society of Physics Students and the Association for Women in Mathematics. As a freshman, she worked with Dr. Ruth Daly in studying supermassive black holes. She later earned a NSF grant to work with Drs. Mark Stecker and Martin Ligare to study nerve impulse propagation. She was an invited participant in the Biomaterials and Bionanotechnology Summer Institute in 2003 to study biopolymer assemblies, presenting her work throughout the US. Danielle has received numerous academic awards such as the PSU Society of Distinguished Alumni Scholarship, John Holmes Teas Scholarship in Physics, Paul Morrow Scholarship in Engineering, and Paul Axt prize. Notably, she was offered the Clare Booth Luce Scholarship and is the first Penn State student to win a Winston Churchill Foundation Scholarship. In addition, she won a Fulbright Scholarship to work with Dr. Michael Breakspear at the Brain Dynamics Centre in Sydney, Australia, which she will integrate with her studies in the NIH-Cambridge program. Danielle enjoys spending her extra time surfing, skydiving, piano performance, and traveling internationally. She also has interests in unusual literary devices in genres as different as medieval Arthurian literature, mystical poetry, poetry writing, post-war avant-garde Japanese literature, and linguistics studies. As a Cambridge Scholar at Churchill College, Danielle works with Edward Bullmore, Thomas Duke and Dr. Andreas Meyer-Lindenberg on neuroimaging of behavior using nonlinear analysis and chaos theory. In her research, she aspires to, "examine the boundary between the metaphysics of cognition and the life-sustaining processes of the brain by applying mathematical modeling techniques and statistical physics to the neural system."